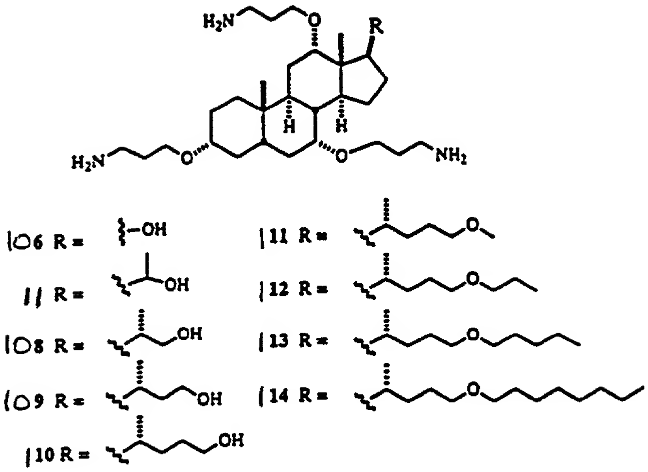
FIGURE 1



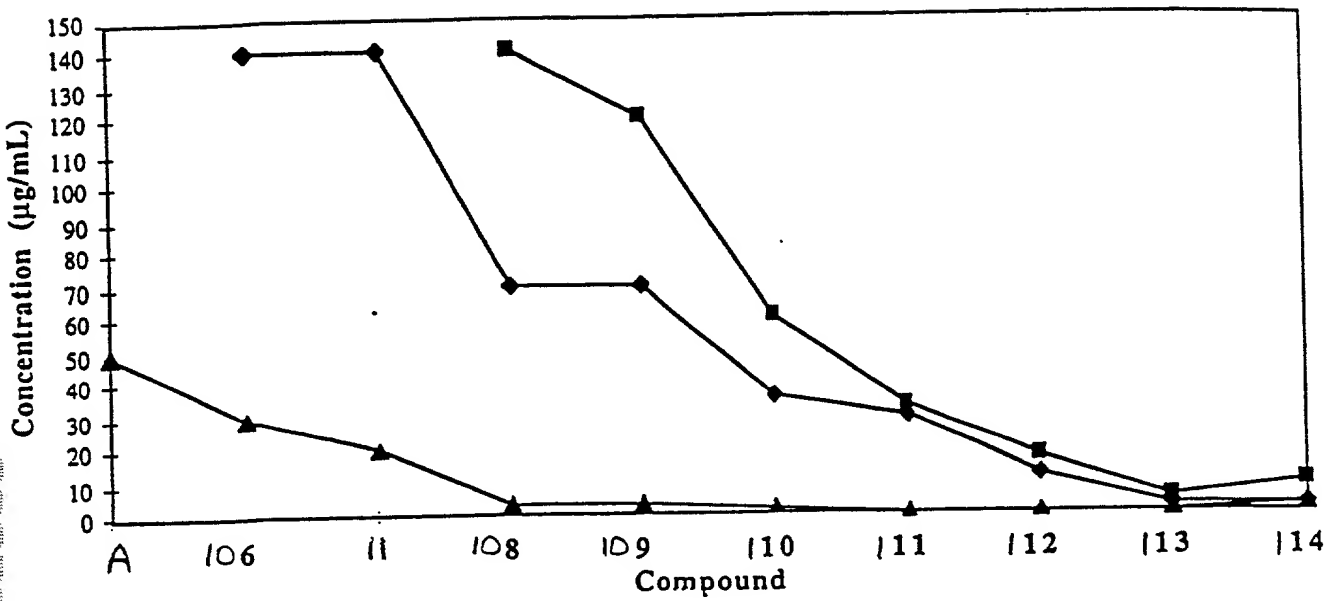


Fig. 2

Figure 2. Plot of the compound number in order of increasing steroid side chain length vs. ▲ concentration required to lower the MIC of erythromycin from 70 to 1 µg/mL (note that PMBN (3) is included); ◆ MIC; ■ MBC with *E. coli* (10798).

FIGURE 3

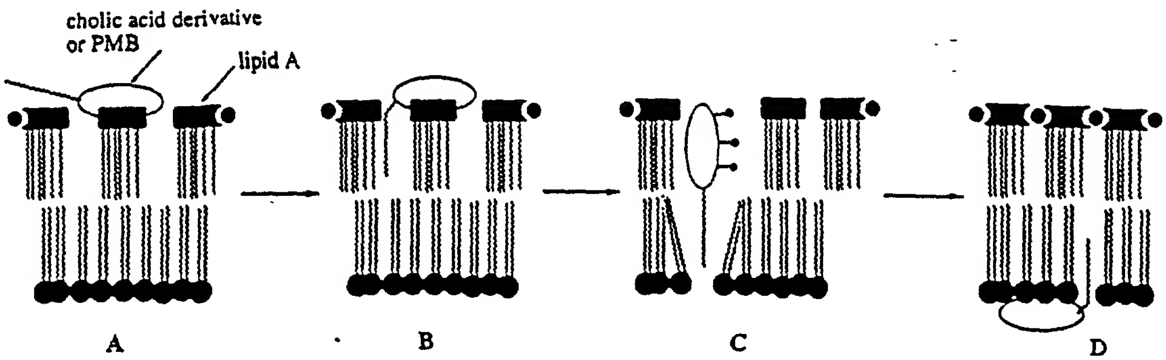
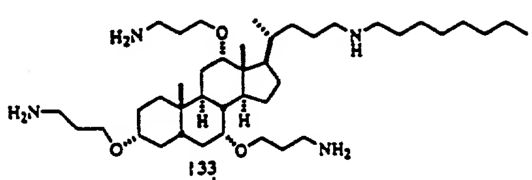


Figure 3 Proposed mechanism for action of cholic acid derivatives and PMB A. Associai of cholic acid derivatives or PMB with lipid A disrupts the lipid A cross bridging and increases the permeabilit the membrane. B. A hydrophobic chain (if present) inserts into the membrane, facilitating incorporation of th remainer of the molecule into the membrane. C. Insertion of the molecule into the membrane further increases permeability of the membrane and allows self-promoted transport. D. As the compounds pass through the ou membrane, they gain access to the cytoplasmic membrane.

FIGURE 4



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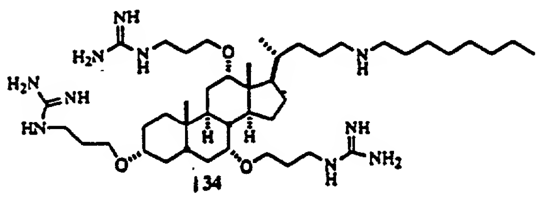

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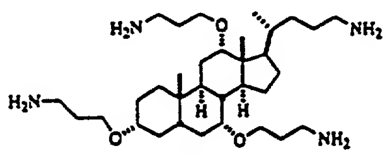


135

FIGURE 5

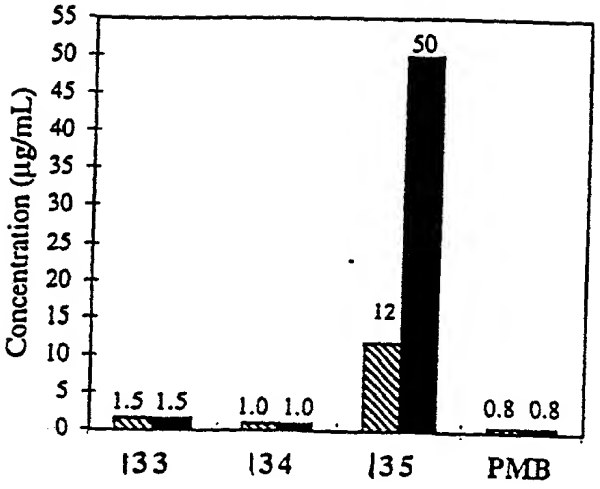


Figure 5 MIC (hatched bars) and MBC (solid bars) values for133 -135 and PMB (2) measured with *E. coli* (ATCC 10798).

FIGURE 6

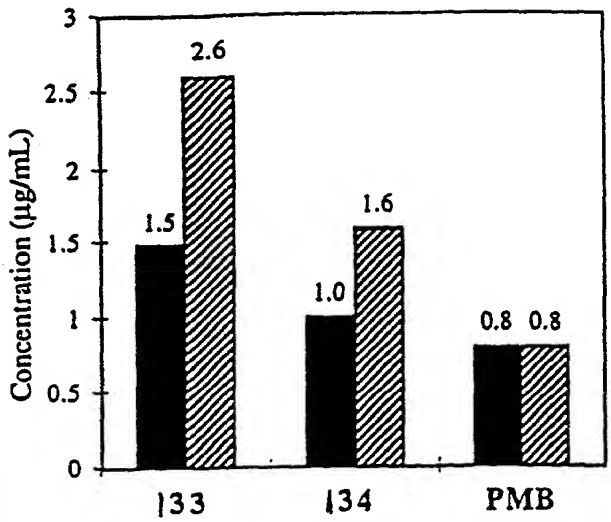
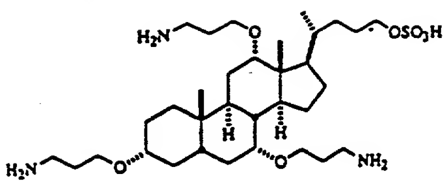


Figure 6 MIC (solid bars) values with *E. coli* (ATCC 10798) and concentrations required for half maximal luminescence (hatched bars) (see text) for I33,I34 and PMB (2).

FIGURE 7



132

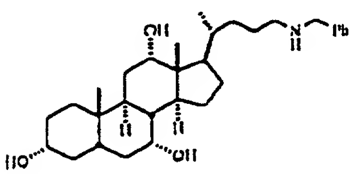


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Fig. 8

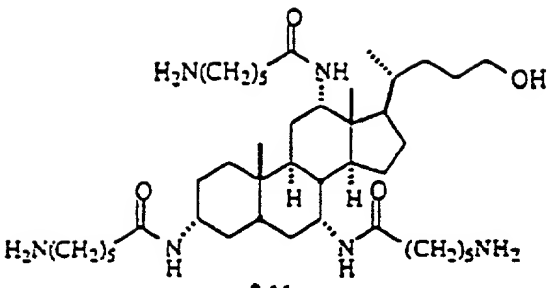

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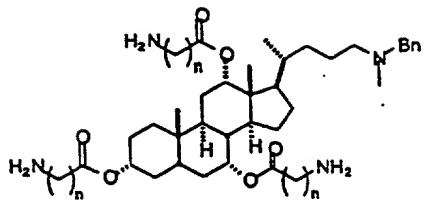
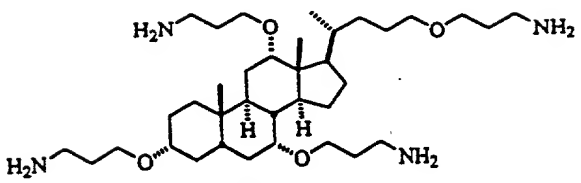
Fig. 9



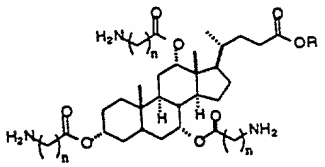
352 n = 1; 353 n = 2; 354 n = 3

Fig. 10



355

Fig. 11

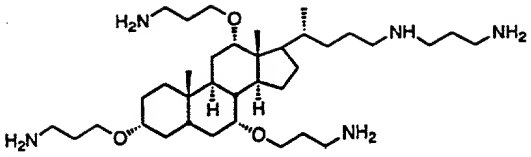


341 n = 1, R = -$(CH_2)_7CH_3$
342 n = 2, R = -$(CH_2)_7CH_3$
343 n = 3, R = -$(CH_2)_7CH_3$

324 n = 1, R = -$CH_2CH_2N^+(CH_3)_3$
325 n = 2, R = -$CH_2CH_2N^+(CH_3)_3$
326 n = 3, R = -$CH_2CH_2N^+(CH_3)_3$

327 n = 1, R = -H

Fig. 12



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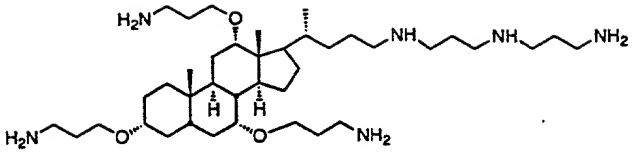

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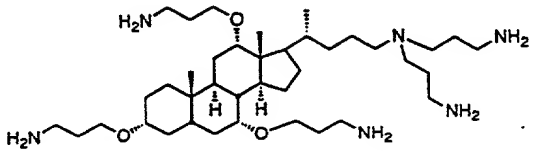

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